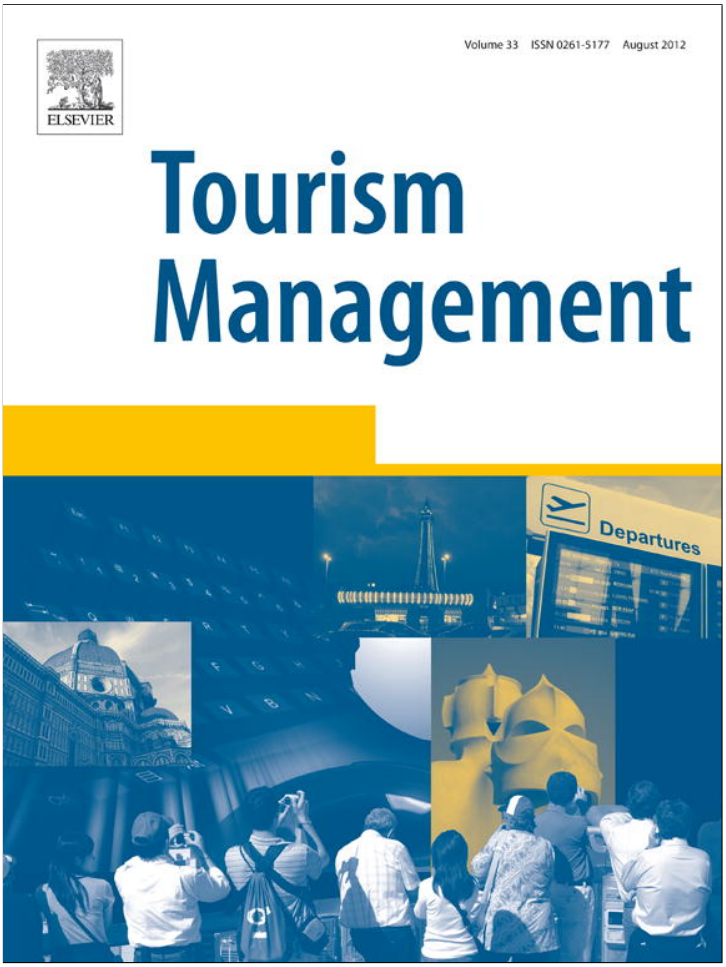

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Off-season tourists and the cultural offer of a mass-tourism destination: The case of Rimini

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ABSTRACT

This paper assesses the potential implications on off-season tourism of enhancing the cultural offer of Rimini, a popular Italian seaside holiday destination hosting about 12 million overnight stays per year. Since more than 9 million of these stays are concentrated in the summer season, in the last 20 years. Rimini has been undergoing a policy of seasonality smoothing, which mainly pivots around business and cultural tourism. This assessment has been carried out through discrete choice experiments submitted to a sample of about 800 tourists who visited Rimini outside the summer months. Since tourism can be viewed as a composite good, which overall utility depends on how the component characteristics are arranged, the choice experiments allow to disentangle the importance and the willingness to pay of tourists for different attributes of the holiday. The choice model incorporates a number of possible changes to actual tourism features (which are also the subject of public debate), including them in hypothetical alternative "holiday packages". The conditional logit analysis of the choice experiments can highlight any synergy or trade-off between cultural and business tourism. Results suggest that business and leisure tourists share many features related to the use of the territory, while there are important trade-offs between these two groups and cultural tourists. Since business tourists have a higher willingness to extend their stay, a softer budget, and their demand is also complementary to the demand of summer tourists (Brau, Scorcu, & Vici, 2009), from the destination point of view investing in this market segment would be the best option. Although a "second best", however, cultural tourists share with the local population of Rimini many aspects of the demand of territory (Figini, Castellani, & Vici, 2009). Hence, cultural tourism can play a fundamental role in the intermediate season as a tool for smoothing seasonality, to diversify investments and to give value to the city's cultural heritage.

1. Introduction

Cultural tourism is an important research topic, lying at the cornerstone of cultural and tourism economics and constituting the motivation for a vast and growing scientific production. However, these two fields of research rarely communicate with each other. A brief, anecdotal analysis of the literature shows that articles published in journals of cultural economics rarely quote tourism economic journals and vice versa. This is partially due to the fact that, in the two literatures, the focus on cultural tourism has different motivations and approaches.

In tourism economics, cultural tourism is often recalled as the main tool used to counteract seasonality in destinations and to overcome problems related to the maturity stage of their life cycle. For tourism destinations, in fact, seasonality leads to many negative economic effects: i) the difficult identification of the optimal level of investment as regards the size of tourism structures (a problem of the long-run); ii) the higher level of volatility (and risk) in economic performance (which is higher the shorter the length of the "peak-season"); iii) the overload in terms of social and environmental carrying capacity of the destination. On the other hand, seasonality can also produce positive effects, if one thinks that the mass of tourists hosted by the destination in the peak-season might be the only possibility to finance the organization of costly and sophisticated cultural events. On the analysis of seasonality in tourism see, among others, Baum and Lundtrop (2001), Candela and Castellani (2008), Hylleberg (1992), Koenig-Lewis and Bishoff (2005), Rosselló Nadal, Riera Font, and Sansó Rosselló (2004).

Moreover, cultural tourism is often considered a viable policy option to implement when a mass-tourism destination reaches its maturity stage. Firstly, a mature destination lacks of competitiveness due to both the obsolescence of its structures and infrastructures and

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to the worsening of the price to quality ratio, which follows its economic development. Secondly, among the different types of tourism to invest in, cultural tourism is often considered the first best for a series of motivations, often recalled in policy discussions: i) cultural tourists have a higher propensity to spend and, in general, higher average income; ii) they often do not spend on homogeneous mass products, being more interested in local quality goods (restaurants, wine, shopping) and in cultural events (shows, concerts, exhibitions) with higher value added, and which benefits are more likely to be evenly spread within the local economy; iii) they are mainly independent holiday makers, therefore less dependent on the policy of external tour operators and travel agencies.

However, the empirical evidence does not completely support this vision, and recent literature finds mixed evidence (Del Corpo, Gasparino, Bellini, & Malizia, 2008): cultural tourists are found to choose shorter holidays, they rarely repeat visits (making fidelity more difficult to implement), and their daily expenditure is lower than other types of tourists (i.e., business tourists). The overall evaluation of investment strategies in cultural tourism, therefore, has necessarily to be destination-specific, not being a general *panacea* for tourism and economic development.

In cultural economics, on the other hand, tourism is considered a valuable sector, mainly for two reasons: firstly, it is the main target market for the cultural offer of a territory, since the great majority of cultural sites' visitors are not part of the local population; secondly, it brings into the territory the financial resources needed to invest in the conservation of the cultural heritage and in the development of new sites, exhibitions and innovative forms of art. It follows that, in cultural economics, the analysis of tourism mainly focuses on applying evaluation methods (such as contingent valuation or travel costs) to tourists interviewed at cultural sites, in order to attach a value on the conservation of these sites and to provide guidelines to policy makers in order to decide how to allocate resources (see, among others, Alberini & Longo, 2006; Navrud & Ready, 2002; Poor & Smith, 2004).

Moreover, Caserta and Russo (2002) highlight that for heritage sites and cultural cities, the development of cultural mass tourism can lead to the growth of same-day visits, with a subsequent decrease in profits for secondary goods (i.e., accommodation and restaurants in the destination), a decrease in the quality of the holiday, less resources available for cultural sites and an overall negative effect on the destination (see also Candela, Cellini, & Scorcu, 2003).

To summarize this brief discussion, cities are interested in promoting cultural tourism, although for partially different reasons: art cities because it is the natural way to increase the value of their cultural heritage; tourism destinations because it is one of the main policies that can counteract the high seasonality induced by natural, social and cultural factors and the maturity stage of their life cycle. These statements raise the following questions: can any city become a tourism destination? Can any tourism destination, particularly a mass-tourism destination, succeed in a policy of tourism diversification and investment in cultural tourism?

In this paper, we attempt to provide an answer to the second question by analyzing one of the main Italian (and European) seaside resorts, Rimini, and leaving the analysis of art cities and of the impact of mass tourism on cultural heritage to other research: a methodologically consistent comparison between a holiday destination that diversifies in cultural tourism and a cultural site that invests in tourism infrastructures could lead to interesting considerations in terms of cultural and tourism policies. In particular, the paper assesses the potential implications on off-season tourism of enhancing the cultural (and leisure) offer of Rimini. Located on the Adriatic sea, Rimini is a middle-size city of 130,000 inhabitants with an income per capita which is higher than the Italian average. Together with its province (mainly a linear city of about 40 km of coast, including the municipalities of Bellaria, Riccione, Misano and Cattolica) it hosts a total of almost 16 million overnight stays (Table 1), of which 12 million are concentrated in the main town of Rimini.

Although tourism represents one of the main economic sectors of the city, Rimini has been undergoing a strong economic diversification and has been investing in the promotion of types of tourism that use the territory outside the summer season. In fact, in the last 20 years, Rimini has been tackling the problem of seasonality through a restyling policy which mainly pivots around business and cultural tourism. Although seasonality is still strong, it is constantly decreasing: the share of overnight stays in the summer season (June–September) was 82% in 1999 and "only" 76% in 2007. The stagnation in the number of overnight stays, the reduction in the average length of stay (see Table 1), the decrease in seasonality and the policy of tourism diversification all signal that Rimini is now a destination in the mature stage of its development.

As regards business tourism, a new exhibition center has recently been built in a strategic position, North of Rimini, very close to the motorway and to the railroad. The opening of a new train station in front of the main entrance of the exhibition center allows visitors to travel to Bologna in 1 h and to Milan in about 2 h, driving Rimini Fair to become the third pole in Italy. Moreover, important conference venues have been built in the last few years.

As regards cultural tourism, Rimini offers a wide range of cultural opportunities, from festivals to museums and to a rich cultural heritage. Although Rimini is hardly considered a "city of art and culture" by Italian standards, the town has a long history which can be traced back to the Roman age and the city allows to stroll through Roman ruins and medieval buildings, castles and museums.

Among Roman masterpieces, the Tiberius Bridge (a five-arched bridge built over 2000 years ago), the Roman Amphitheatre (one of the largest amphitheatres in the region, probably constructed in the 2nd century A.D.), the Surgeon's Domus (a well preserved archaeological site right in the middle of the city center) and the Arch of Augustus (built in 27 B.C., the oldest archway in Roman history that is

Table 1
Arrivals, overnight stays and length of stay of Italian and Foreign tourists in the province of Rimini (1972–2007, thousands).

Year	Arrivals, Italians	Arrivals, Foreigners	Arrivals, total	Overnight stays, Italians	Overnight stays, Foreigners	Overnight stays, total	Length of stay, Italians	Length of stay, Foreigners	Length of stay, total
1972	630	399	1029	10,274	5407	15,680	16.31	13.55	15.24
1977	733	410	1143	10,408	5183	15,592	14.20	12.64	13.64
1982	1146	589	1734	11,906	6154	18,060	10.39	10.45	10.42
1987	1477	660	2137	11,809	5816	17,624	8	8.81	8.25
1992	1812	415	2227	12,624	2935	15,559	6.97	7.07	6.99
1997	1828	528	2355	11,813	3646	15,459	6.46	6.91	6.56
2002	2089	586	2675	12,034	3661	15,695	5.76	6.25	5.87
2007	2335	613	2948	12,200	3522	15,722	5.22	5.75	5.33

Source: Statistical Office, Province of Rimini.

preserved to the present day) emerge. The main Renaissance monuments are Sigismondo's Castle (built in the 15th century, it now hosts exhibitions and other cultural events) and the Malatesta's Temple (Rimini's cathedral, built by Leon Battista Alberti, home of important artworks by Giotto, Vasari and Piero della Francesca). Moreover, Rimini offers a wide range of performing leisure and art events and gives visitors the possibility to stroll around shops and street markets, eat in local restaurants, and take part in excursions across the many picturesque surrounding villages.

Indeed, Rimini constitutes an important case-study to assess whether synergies or trade-offs between different types of tourists visiting the destination off the main (summer) season exist. In such a way, one could possibly evaluate the effectiveness of policies aimed at promoting business and cultural tourism in a city which is organized to be a "leisure" mass-tourism destination.

The research for this paper was carried out through discrete choice experiments submitted to a sample of about 800 "off-season" tourists, that is, tourists who visited Rimini outside the summer months (interviews were conducted during the months of April and May 2010, see Section 3 for a full description of the sample and the survey).

Choice experiments are a survey-based technique often used to place a value on a non-market or semi-public good, and allow to evaluate the relative weight of the different attributes of goods. Its use has spread to many research fields (marketing, health, transport and environmental economics) and in recent years it has often been applied in tourism economics to analyze tourists' preferences with respect to holiday attributes, recreational and heritage demand, attractiveness of a destination and tourism policies. Among the many papers that recently used this methodology in tourism economics, see Apostolakis and Shabbar (2005), Brau and Cao (2008), Brau, Scorcu, and Vici (2009), Breffle and Morey (2000), Crouch and Louviere (2004), Figini, Castellani, and Vici (2009), Huybers (2005), Huybers and Bennett (2000), Morey, Rossmann, Chestnut, and Ragland (2002) and Papatheodorou (2001). Its use is not so common in cultural economics, in which other types of stated preferences approaches are often applied. For an overview of the main differences among alternative stated preference methodologies, particularly with respect to contingent valuation, see Bateman et al. (2002), Bennett and Blamey (2001), Louviere, Hensher, and Swait (2000), and Mazzanti (2003b).

The first application of choice experiments in cultural tourism dates back to Louviere and Hensher (1983). More recent papers evaluate tourists' preferences on the conservation, utilization or enhancement of cultural goods and their correlated facilities and, at the same time, investigate appropriate approaches to capture (systematic or non-systematic) heterogeneity (Apostolakis & Jaffry, 2005; Choi, Ritchie, Papandrea, & Bennett, 2010; Mazzanti, 2002, 2003a; Morey et al., 2002). Other papers compare different evaluation approaches. In particular, Mazzanti (2003b), Tuan and Navrud (2007), Tuan and Seenprachawong (2007), compare contingent valuation and choice modeling methods in cultural contexts. Other studies on cultural economics apply choice experiments to estimate residents' preferences rather than tourists' preferences on the "use" of cultural goods (Alberini, Massiani, & Rosato, 2009; Massiani & Rosato, 2008).

Since a holiday can be viewed as a composite good, which overall utility depends on how the component characteristics are arranged, the choice experiments allow to disentangle the importance for and the willingness to pay of tourists for (hypothetical) changes in the composition of the tourism product. In particular, we aimed to detect the effect of changes in the intensity (levels) of six key characteristics (attributes) of the stay in Rimini that are linked to the use of its territory (and which are also the subject of public debate). Our paper focussed on how "secondary types" of tourists evaluate possible and hypothetical modifications in the urban, territorial and cultural configuration of their stay. Conditional logit analysis of choice experiments enabled us to estimate the relative weight of each attribute in affecting tourists' choice and allowed us to indicate the potential synergies or trade-offs between cultural, business and leisure tourism.

It is important to highlight that the methodology used and the structure of the questionnaire allowed a partial comparison of our findings with the results stemming from two previous studies carried out on Rimini, respectively on summer tourists (Brau et al., 2009) and on the local population (Figini et al., 2009). This might highlight potential synergies and trade-offs between the preferences of off-season tourists, summer tourists, and residents, bringing to a comprehensive overview of the policy implications of implementing alternative strategies of tourism and cultural development.

With respect to summer tourists, synergies might stem from: i) the joint use of sophisticated tourism structures and attractions, which are economically sustainable only because a "peak-season" exists; ii) being that tourism is an experience good, the perceived level of quality in one season might have positive externalities in the intermediate season. On the other hand, trade-offs with summer tourism might stem from: i) the feeling of neglect and sadness, which is usually experienced by an off-season tourist when hosted in structures dimensioned on the peak-season; ii) the lack of offer or its inadequacy, when the whole tourism sector is organized only for the peak-season.

With respect to local residents, their attitudes toward tourists should be carefully taken into consideration. The success of many tourism development programs depends on a local management that is sensitive both to the social impact of tourism on the host population, and able to increase the benefits derived from tourism, by preventing or reducing its negative aspects, also in relations with the mix of the different types of tourism. In particular, the potential trade-off with the local population stems from the fact that the most important resource for tourism – the environment or, more generally, the territory – is to be shared with residents.

In the last 15 years, the socio-economic impact of tourism and the factors affecting residents' attitude toward tourism have received some attention (Akis, Peristianis, & Warner, 1996; Alberini, Rosato, & Zanatta, 2005; Crotts & Holland, 1993; Faulkner & Tideswell, 1997; Haralambopoulos & Pizam, 1996; Lindberg, Dellaert, & Rassing, 1999; Lindberg & Johnson, 1997a, 1997b). In particular, the impact of tourism is often disaggregated into three categories: economic, socio-cultural and environmental effects (Ryan, 1991; Williams, 1979). Since tourism generally disrupts social, cultural and environmental local systems, the non-economic impact often tends to be negative as a whole (Liu, Sheldon, & Var, 1987), whilst economic effects are perceived as positive.

The interest of this paper for tourism researchers and practitioners lies in the following aspects: i) the focus on off-season tourists, a category of tourism that is often neglected in the relevant literature; ii) the extension of CE models to the analysis of the whole territorial offer, by integrating with latent-class analysis and thus providing a model for future case-studies; iii) the relevance of Rimini, as a mature summer destination that has strongly invested in business and cultural tourism, can provide useful insights into the evaluation of some aspects of tourism policy that are, in our opinion, of general interest.

The remainder of the paper is structured as follows: Section 2 briefly reviews the methodology applied and describes the questionnaire. Section 3 illustrates some descriptive statistics of the survey. Section 4 presents the main econometric results of the choice experiments while Section 5 discusses the policy implications, also through a comparison with the results of previous studies on residents and summer tourists in Rimini. Section 6 discusses and concludes.

2. The methodology and the survey

The choice modeling is a stated preference approach which investigates individual behavior and estimates the value of goods (or projects) by asking people to choose among scenarios which differ in the combination of alternative levels of some selected attributes (characteristics). One of the advantages of choice experiments lies in their ability to model individuals' hypothetical demand for non-market goods. This enables analysts to elicit individuals' willingness to pay for goods and services that may otherwise be unattainable from observing actual behaviors. This methodology develops through three main steps (Hanley, Mourato, & Wright, 2001; Mazzanti, 2003b): i) identification of the basic attributes (with their levels) of the good or project to be evaluated; ii) choice experiments in which respondents choose among alternative hypothetical scenarios characterized by different combinations of attribute levels; iii) econometric analysis of respondents' choices, which allows to estimate the relative importance of the attributes and, if a monetary factor or a price is included as an attribute, the willingness to pay for different levels of the other attributes.

Consistently with the random utility theory (McFadden, 1974; Thurstone, 1927), consumers' utility is considered a latent structure that cannot be observed directly. By designing and implementing a valid preference elicitation procedure, a significant proportion of the unobservable consumer utility can be assessed. The chosen scenario in each experiment corresponds, *ceteris paribus*, to the combination of attribute levels bringing the highest utility. Lancaster's (1966, 1971) hedonic theory, which states that goods are not demanded *per se*, but for their elementary characteristics, can be considered the theoretical foundation of discrete choice models.

Formally, given a sample of H respondents, with $h = 1,2,\ldots,H$, and a set of alternative choices, $j = 1,2,\ldots J$, the random utility specification can be represented as a linear additive specification with independently and identically distributed (IID) random terms (Louviere et al., 2000):

$$U_j^h = V_j^h + \varepsilon_j^h$$

$$U_j^h = \boldsymbol{\beta}' \boldsymbol{x}_j^h + \varepsilon_j^h \tag{2.1}$$

where the unobservable utility value for the choice alternative j made by consumer h (U_j^h) is given by a deterministic and systematic component (V_j^h) and a random term (ε_j^h).

The IID assumption entails the property of independence of irrelevant alternative (IIA – McFadden, 1984). Violations to the IIA assumption may arise when some alternatives are qualitatively similar to others or when there are heterogeneous preferences among respondents. If the IIA property is violated, the estimated parameters of the conditional logit are unbiased and consistent but not efficient, and standard errors are inappropriate (Fry & Harris, 1998). However, in many cases, experts use the conditional logit model even in presence of an IIA violation (Bennett & Blamey, 2001; Christiadi & Cushing, 2007; Mazzanti, 2002). When socio-economic heterogeneity is fully incorporated into the model, conditional logit specifications are robust.

In model (2.1), the probability that an individual h picks alternative i out of J alternatives, can be represented as follows:

$$P[y_h = i] = \frac{\exp(\mu \boldsymbol{\beta}' \boldsymbol{x}_i^h)}{\sum_{j=1}^{J} \exp(\mu \boldsymbol{\beta}' \boldsymbol{x}_j^h)} \tag{2.2}$$

where y_h is a choice index, representing the choice made by individual h, and μ is a scale parameter which is inversely proportional to the standard deviation of the error distribution. It typically assumes the value 1 (Ben-Akiva & Lerman, 1985), implying a constant error variance. The estimation of Eq. (2.1) with a conditional logit model yields β coefficients that can be used to evaluate the rate at which respondents are willing to trade-off one attribute to another. This rate of substitution σ is calculated as the ratio between the β coefficients of two attributes. When attributes are discrete variables, the substitute ratio σ is computed as "values of level change", as in (2.3).

$$\sigma = 1 - \frac{\beta_k \Delta x_k}{\beta_s} \tag{2.3}$$

When the attribute is expressed in monetary terms, this trade-off σ is an "implicit price". These estimates rely on the assumption that the marginal utility of income is constant: this holds only when small changes are considered (involving a tiny share of total individual income).

In our investigation, the choice experiments were designed to gather information on off-season tourists' perception of actual or hypothetical "holiday packages" offered in Rimini for leisure and cultural purposes. To this aim, we considered six attributes which are carefully described in Table 2 together with their levels, and which combinations define the alternative scenarios. The identification of the six attributes and their levels was the result of frequent research meetings, also with local stakeholders; a pilot test was carried out in the weeks preceding the survey and proved very useful to check the comprehension of the attributes and the clear perception of the difference in levels.

There are several reasons why these attributes were selected. Firstly, we had to consider important features of Rimini as regards potential interactions (trade-off and synergies) among off-season tourists, summer tourists and residents in the use of the territory and in terms of actual political debate. This reason motivated the inclusion in the survey of the attributes of organized system of wellness and sport facilities (attribute n. 3) and the commercial offer (attribute n. 5), since the underlying rationale is to offer structures that are already available in the territory, but that are used well below their full capacity outside the summer season.

Secondly, sustainability considerations and policies aimed at protecting and developing natural and cultural resources are common features of contemporary policy agendas. Rimini is a mass-tourism destination, but also a middle-size city, and tourists' willingness to pay for a more environmentally friendly city might play a crucial role both in the policy strategy, and in terms of tourism development. This reason motivated the inclusion in the survey of the attributes of environmental protection of the beach (attribute n. 2), the organization of day-trips in the surroundings of Rimini (attribute n. 1) and the promotion of cultural and leisure activities through particular cards (attribute n. 4).

Finally, the cost attribute included in the survey was identified with time (attribute n. 6): in this way, our intention was to inquire whether the tourists, given the other attribute levels of the scenario, were willing to stay (and pay for) one or two more nights (and take one day off from work). The decision of considering a time cost, and not a monetary value, was mainly driven by the fact that a relevant share of off-season tourists interviewed were business tourists, whose trip was organized and paid by their employer. To provide a price attribute to them therefore would have been highly hypothetical, since the trip budget was not fully under their control. Moreover, we were observing a high heterogeneity in both incomes and in the cost of accommodation, which would not fit with the crucial assumption of constant marginal utility, which is implied by model (2.1) and by the assumption of IIA. On the contrary, time seemed to be more binding for off-season tourists, since the

Table 2
Definition of attributes and their levels.

Attribute 1 – Organization of social events and availability of one day trips in the surroundings of Rimini.
Level 1 (*status quo*): one day trips are always available if self-organized, with no tourist guide.
Level 2 (*organized trips*): it is possible to organize and book guided tours in the surroundings of Rimini through the hotel.

Attribute 2 – Environmental impact of bathing establishments and other beach services.
Level 1 (*high preservation of beach environment*): The environmental impact of bathing establishments and other beach services, bars and restaurants is low (rare and small concrete buildings) and the seaside avenue is closed to traffic.
Level 2 (*medium preservation of beach environment*): The environmental impact of bathing establishments and other beach services, bars and restaurants is low (rare and small concrete buildings) and the seaside avenue is open to traffic.
Level 3 (*medium preservation of beach environment*): there is a high number of permanent buildings (in concrete) for bathing establishments and other beach services and the seaside avenue is closed to traffic.
Level 4 (*low preservation of beach environment – status quo*): there is a high number of permanent buildings (in concrete) for bathing establishments and other beach services and the seaside avenue is open to traffic.

Attribute 3 – Health, sport and wellness tourism.
Level 1 (wellness and *sport events are not organized – status quo*): it is possible to use wellness structures and sport activities in detached facilities (or in some hotels), after paying a separate ticket.
Level 2 (*integrated system of sport and wellness facilities*): it is possible to use external wellness structures and sport activities, fully integrated with the hotel's offer and included in the price of accommodation.

Attribute 4 – Cultural and leisure activities offered off-season in Rimini.
Level 1 (*status quo*): the city offers few museums and a good level of heritage conservation, open in daytime.
Level 2 (*cultural card*): the hotel package includes a card allowing tourists to visit the main museums, heritage and exhibitions.
Level 3 (*leisure card*): the hotel package includes a card allowing tourists to enter or to have discounts in some bars, restaurants and nightclubs.
Level 4 (*all-inclusive cultural and leisure card*): the hotel package includes a card allowing tourists to visit the main museums, heritage and exhibitions and allowing them to enter or to have discounts in some bars, restaurants and nightclubs.

Attribute 5 – Evening and night opening of shops
Level 1 (*closed shops – status quo*): in the city center and on the seaside, shops are closed at late evening, night and on Sundays (exceptions are the few commercial malls outside the city (Malatesta, Befane)).
Level 2 (*night opening of shops*): in the city center and on the seaside, shops are systematically opened at late evening, night and on Sundays according to the needs of off-season tourists.

Attribute 6 – Time cost of the scenario: willingness to spend more time in Rimini.
Level 1 (*0 extra-night spent in Rimini*): given the present scenario, there is no willingness to stay one more day at own expense.
Level 2 (*1 extra-night spent in Rimini*): given the present scenario, there is willingness to stay one more night at own expense.
Level 3 (*1 extra-night and 1 day of leave from work*): given the present scenario, there is willingness to stay one more night at own expense and take one more day off work.
Level 4 *(2 extra-nights and one day leave from work)*: given the present scenario, there is willingness to stay two more nights at own expense, and take one more day off work.

intermediate season is not the time for annual paid leave and tourists would have to ask one or more days off from work to lengthen their stay. Finally, from the destination point of view, the reduction in the average length of stay, which is one of the main features of contemporary tourism (Table 1 shows that the average length of stay in Rimini went down from 15 days in 1972 to 10 days in 1982, to little more than five days in 2007), can lead to a deterioration of the overall quality of its tourism product, with negative consequences on the destination's reputation, which can drive it into a vicious circle (Candela et al., 2003). Therefore, it can be argued that the relevant variable to target, for some tourism destinations, is not tourists' overall spending, but the length of stay in the destination (which, however, is directly linked to spending).

The attributes and their respective levels were very similar to the ones submitted to summer tourists (Brau et al., 2009) and to the local population (Figini et al., 2009) in two other surveys. Although some differences exist, particularly on the monetary and the cultural attributes, this allowed us to compare, at least partially, the elicited preferences of tourists and residents over the shared territory of Rimini (see Section 5).

The full factorial of all the possible combinations of attribute levels would yield, in our case, 512 scenarios. An orthogonal fractional factorial design was used to reduce the number of profiles at a convenient size: 32 scenarios were identified. Pair-wise comparisons were created using the shifted design strategy (Louviere et al., 2000). The interviews were hence split into four groups whose respondents had to answer to different sets of 8 choice cards with different pairs of hypothetical alternative scenarios. The pilot test showed that respondents could cope with up to eight choice pairs each. In fact, violations related to instability of preferences can arise from learning and fatigue effects (Hanley, Wright, & Koop, 2002).

In order to make clear and homogeneous the comprehension of attributes and to facilitate the individual decision process, the oral explanation of attributes and levels was accompanied by the presentation of drawings and pictures describing each attribute and level. In each group, the cards submitted were the same but were presented every time with a different sequence, in order to avoid any question order bias. We explicitly did consider a *status quo* alternative, asking the respondents whether they would prefer it irrespectively of the chosen alternative, thus allowing for a more coherent evaluation of the proposed scenarios. In our case, only 3.2% of the stated preferences were not confirmed after the comparison with the *status quo*.

Overall, the questionnaire was divided into six sections: the first section collected the main coordinates of the interview (date, location and length); the second part inquired into the socio-economic and demographic characteristics of the respondent and his/her household; the third section inquired into the main features of the holiday (main motivation of the trip, booking system, length of stay, etc.); the fourth section was the choice experiments and asked each respondent to choose among eight pairs of alternative scenarios; the fifth section inquired into the respondent's self-evaluation of the characteristics under investigation, while the sixth section brought together some other information about the comprehension of the experiment. In particular, the interviewer annotated the degree of comprehension, interest and facility both in answering questions and in choosing the alternatives. Problems of poor identification of alternative scenarios were somewhat relevant: the reported level of comprehension of the choice experiment was overall satisfying although 13.2% of the sample did not properly understand the questionnaire according to the interviewers' impressions. Given the high number of interviews (825), we decided to exclude from the analysis all those interviews for which the level of comprehension, the interest and the facility of choice were reported insufficient, and the interviews presenting incoherent answers. This left us with a sample of 718 questionnaires.

Interviews were conducted in April and May (of 2010), a period in which Rimini is visited by both cultural and business tourists. Since a full breakdown of the characteristics of off-season tourists in Rimini was not available, it was not possible to build a representative sample of the relevant population, and interviews were then conducted randomly in different places of the city (exhibition center, museums, streets, train station, airport, hotels) to visitors

who declared to spend at least one night in Rimini. Such approach, although not completely satisfying in dealing with the risks of non-randomness, it proved effective: the ex-post distribution of respondents' characteristics matched the few available data on the population's characteristics (mainly in terms of the visitors' region of origin and type of accommodation). Interviews took on average 15 min.

3. Tourists' demographic and social characteristics

The distributions of respondents' characteristics, which are described in Table 3, are the following.

Firstly, as regards the region of origin, 88.4% of respondents were Italians (among which, 41.6% came from Northern Italy, 28.5% from Central Italy, and 29.9% from Southern Italy) and 11.6% were Foreigners. Males were 57.2% and females 43.8% of the sample. 54.2% of the respondents were married or living with a stable partner, the remaining 45.8% were single.

Secondly, as regards the educational background, we found that 15% of the respondents hold a primary degree, 44.3% a secondary degree, while 40.7% a University degree. The high percentage of people holding a tertiary degree (above the Italian average) matched with the professional status of the respondents (among which we found 6.6% of entrepreneurs, 15% of professionals, 4.2% of managers, 29.4% of employees/white collars) and with the general characteristics of both cultural and business tourists.

Thirdly, as regards income, it is not uncommon in this type of survey to find a fairly important percentage of non-respondents (10.2% in our case); however, the reported distribution of net monthly household income is not surprising. Finally, we asked whether the respondents were members of environmental (8.4%) cultural (27%) or sport (32%, including gym and fitness clubs) associations. This information has proved useful for some of the robustness analysis carried out to test the econometric model.

The second part of the questionnaire inquired into the characteristics of the trip to Rimini. Firstly, we asked what was the main motivation of the trip. We found that the sample could be divided into three main sub-samples: business tourists (42.6%), cultural tourists (21.6%), and leisure tourists (34.5%). Moreover, 1.3% of the sample reported "other reasons" (it is curious to report the experience of a tourist who, compelled to remain in Italy for the days of the Eyjafjallajökull eruption in Iceland, decided to spend a few days in Rimini).

Secondly, 59.5% of the sample self-organized the trip, 15.9% let a travel agency or tour operator to organize it, while the remaining 24.6% let their own company to take care of the booking. This aspect often interacts with the responsibility of payment. We found that 69.5% of respondents directly paid the trip, 26.5% had the trip paid (or refunded) by their own company, while the remaining 4% was invited. It is therefore interesting to notice that an important share of people traveling for business reasons (42.5%) directly paid the trip. Moreover, almost all business travelers (89.5%) let the company organize the trip (mainly with the help of travel agencies), although there was a relevant share (10.5%) who self-organized it. Finally, 54.5% of the sample used Internet to gather information, organize and/or buy different services, while 30% did not use it (the remaining 15.5% did not know because the trip was organized by someone else).

As regards the means of transportation (Table 4), car was the most important (45%), followed by train (26.9%), airplane (14.9% – although 8.4% have used another means – train, bus or car to finally reach Rimini), bus (13%), boat (0.3%).

As regards accommodation, as expected, the great majority of tourists stayed in three-star hotels (47.8%) and four/five-star hotels (39.4%). Among other accommodations, it is interesting to note that 5% of tourists were hosted by friends and relatives. Among the respondents who stayed in hotels, 60.5% decided for bed & breakfast service, while 18.1% opted for half-board and 12.7% for full-board treatment. The remaining 8.7% did not choose any boarding.

Another interesting aspect is related to the length of stay. As expected, off the summer season, the average length of stay is low (3.24 days), with 68.5% of the respondents who stayed up to three days (42.5% up to two days). On the upper side of this distribution, it is important to note that 3.1% of the sample stayed over one week (up to a maximum of 15 days).

An important feature that could be linked to our choice experiment is the repetition of the visit to Rimini. As reported in Table 5, only 31.4% of the sample had not visited Rimini before the interview, and among the 68.6% of those who previously visited Rimini, 24.2% of the sample did it for leisure activities during the summer months only, and a high share of respondents (37.6%) previously stayed in Rimini for both leisure and non-leisure reasons. This result might suggest that there is a high percentage of repeat visits, made by tourists who already knew the city and who might not be interested in increasing the length of the single holiday, at least in the intermediate season.

Table 3
Demographic and socio-economic characteristics of the sample.

	%		%
Age class		**Occupational/professional status**	
<30	24.2	Entrepreneur	6.6
30–39	22.6	Professional	15.0
40–49	19.1	Craftsman	3.1
50–59	19.6	Manager	4.2
≥60	14.5	Dealer	5.2
		Employee/white collar	29.4
Income class (Euro)		Worker/blue collar	4.9
Net monthly family income		Teacher	6.7
<1000	10.5	Farmer	0.3
1001–2000	35.1	Student	12.7
2001–3000	25.4	Retired	8.9
3001–4500	17.6	Other	3.2
4501–6000	7.6		
6001–10,000	2.1	**Gender**	
>10,000	1.7	Males	57.2
		Females	42.8

Table 4
Main characteristics of the trip.

	%		%
Main motivation of the trip		**Accommodation**	
Business tourism	42.6	4/5-star hotel	39.4
Trade fair	(21.5)	3-star hotel	47.8
Business meeting	(21.2)	1/2-star hotel	3.3
Cultural tourism	21.6	Residence	2.0
Cultural reason	(14.8)	Friends or relatives	5.0
Religious reason	(2.8)	Other	2.5
School trip	(4)		
Leisure tourism	34.5	**Treatment**	
Leisure	(16.2)	Only bed	8.7
Spa, wellness and sport	(4.5)	Bed & breakfast	60.5
VFR	(11.5)	Half-board	18.1
Shopping	(2.1)	Full-board	12.7
Other	1.3		
		Length of stay	
Means of transportation		One night	9.4
Car	45.0	Two nights	33.2
Train	26.9	Three nights	26.0
Airplane	14.9	Four nights	15.1
Airplane only	(6.5)	Five to seven nights	13.3
In connection	(8.4)	Eight to fifteen nights	3.1
Bus	13.0		
Boat	0.3		

Table 5
Previous and future trips to Rimini.

	%		%
Previous trips to Rimini		**Future trips to Rimini**	
Yes	68.6	Yes	69.5
No	31.4	No	3.2
		Don't know	27.3
Motivation of previous trips		**Motivation of future trips**	
Business tourism	38.2	Summer holiday	31.8
Leisure tourism	24.2	Leisure holiday	24.3
Both types of tourism	37.6	Business trip	18.1
		More than one reason	26.8

And what about the future? Only 3.2% of the respondents explicitly excluded future visits to Rimini. It is interesting to notice that, among business tourists who were planning future visits, only 38.9% of respondents intended (or planned, or needed) to return to Rimini only for business reasons. The remaining 61.1% suggested that leisure and cultural tourism are potential reasons for returning to Rimini: this underlines the key role of business tourism as a tool to promote the cultural and leisure offer of the territory.

3.1. Tourism market segments and latent-class analysis

In general terms, it is possible to identify different segments of tourists in two ways: exogenously or endogenously. In the previous section, we described and classified tourists on the basis of observable and characterizing variables, and by directly asking what is the main reason of their trip to Rimini. However, such exogenous classification might fail to identify and quantify homogeneous groups of tourists, defined on the basis of intrinsic and unobservable characteristics. For this reason, the questionnaire was built in a way to endogenously identify different segments of tourism through a latent-class analysis. The aim of latent-class analysis is to study the influence of socio-economic and demographic variables on the inclusion of individuals in one rather than another segment: Pulido-Fernandez and Sanchez-Rivero (2010) is one of the few examples of latent-class analysis used to identify what they call "culturophile tourists".

A factor analysis was used to explain individual preferences on tourism consumption. The technique allowed us to extract from the data some common factors, in order to reduce the number of explanatory variables which may impact the choice. In this way, it was possible to classify tourists into a few homogeneous clusters. Factor analysis makes it possible to obtain a simpler but still informative structure yielded by the correlation between variables. The estimation procedure was the principal factors method, although the use of alternative procedures (iteration, maximum likelihood, etc.) did not significantly alter the results. According to several selection criteria (the eigenvalue, the explained variance – see Table A1, Appendix – and the screen-plot) it was deemed appropriate to extract two common factors. An orthogonal VARIMAX rotation was used. Table A2, Appendix shows the main characteristics of the variables used in the factor analysis.

The first factor is characterized by people who attach a large value to wellness, leisure and sport activities, love shopping, are associated to sport clubs and self-organize the holiday by making an extensive use of Internet. This factor is significantly correlated (at the 5% level) with tourists' willingness to visit Rimini again and to the group of tourists who recognize in leisure (and not cultural) activities the main reason of their stay in Rimini.

The second factor catches love for cultural activities, a strong preference for organized tours, a significant care for the environment, and includes people with higher education, associated to environmental and/or cultural clubs. People largely affected by this factor do not self-organize the holiday and have a shorter stay in Rimini. This factor mainly affects tourists who recognize in cultural events the main motivation of their stay in Rimini and is significantly correlated with tourists lodging in 4–5 star hotels and with people with higher income.

Factor and cluster analyses allowed us to identify tourism segments on the basis of individual positions in terms of extrapolated factors (Figure A1, Appendix). In this way it was possible to group subjects according to their relative proximity (in terms of Euclidean distance or smaller variability). Among the many clustering techniques based on different similarity functions among observations, we used an average linkage method.

Three main clusters have been identified (Figure 1):

1. "Culture lovers" (28.51% of the sample): tourists who are not very interested in sport and wellness activities but are mainly affected by cultural assets. On average, they are 50 years old, predominantly women, have higher incomes and have a short length of stay in Rimini. A large percentage of culture lovers buy organized tours and package holidays.
2. "Leisure lovers" (66.76% of our sample): tourists who are mainly interested in sport and wellness facilities and are only slightly affected by the cultural offer. On average, they are 38 years old, have lower incomes and intend to stay in Rimini more than three days. The 75% of leisure lovers intends to repeat the visit to Rimini and self-organizes the holiday.
3. "Indecisive tourists" (4.73% of our sample): this marginal class includes few individuals who are neither interested in culture nor in leisure activities.

In the next section we compare exogenous segments based on observable variables (thus assuming that subjects with the same characteristics tend to behave similarly) with endogenous and induced segments based on choices and behaviors.

4. Econometric results

4.1. The conditional logit analysis

Table 6 presents the results of a conditional logit model estimated for the whole sample and for three sub-samples based on whether the trip's main reason is business, cultural or leisure. All the attribute levels, which are described in Table 2, were elaborated as dummy variables, with the exception of the extra time spent in Rimini (attribute 6 – time value), which took four different quantitative values corresponding to 0, 1, 1.5 and 2 (the additional number of days the tourists are willing to spend in Rimini). The 0-values for the dummies were set up on the *status quo* for each attribute. Since each hypothetical scenario was planned to "improve" the quality of the holiday, we were expecting positive signs for all the coefficients.

We also inserted an alternative-specific constant (ASC) to capture those characteristics of the choice not otherwise included in the model. In our case, there might be a tendency of individuals to prefer any scenario labeled 'A' (on the left of the card presented to the respondent) over any other scenario labeled 'B' (on the right of the card). This is a frequent finding in such models (Louviere et al., 2000), and the inclusion of the alternative-specific constant allows to effectively control for this behavior. The coefficient for the ASC variable was never found significant.

For the whole sample, the maximum likelihood estimates show that all the coefficients were statistically significant and with the expected sign, with the exception of the time attribute (Table 6). As a check on the role played by time, we re-run the model with the time value inserted as a series of dummies (Table 7). In such

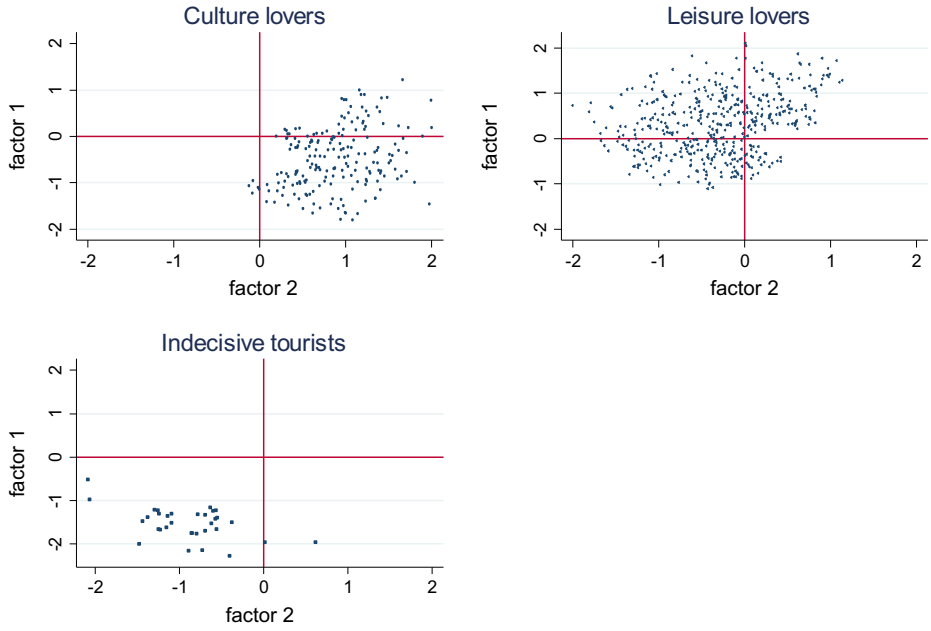

Fig. 1. Factor scores for each cluster.

specification, the coefficient was significant for the dummies related to one more night and one more night plus one day off work. The coefficient for the dummy related to two more nights, however, was not significant. All the other coefficients did not change, both in terms of value and significance, in moving from the specification of Table 6 to the one of Table 7.

What is the explanation for the different behavior of the time attribute between these two specifications? While the model run in Table 6 implicitly considers that spending two more days in the city is better than spending one more day, the model run in Table 7 does not have such a constraint. In other words, the marginal utility of an additional day in Rimini, weighted by the expected daily expenditure, can have different signs in different days. Hence, the dummies allow to capture this non-monotonic relationship between choice and time. While tourists have a positive attitude about spending roughly one more day in Rimini (and are willing to increase their spending accordingly) in order to take advantage of the improved scenarios offered by the city, two more days are instead associated with a very "high price" to pay, given the characteristics of the alternative scenarios. The model run in Table 7, however, has a downfall: it is not possible to compute implicit prices to estimate the amount of "time/money" respondents are willing to spend in order to receive a change in the level of the other attributes.

As stated many times before, it is likely that choices depend on many characteristics of the tourists and of the trip. In order to control for preference heterogeneity, we decided to use two main approaches: i) we estimated the main-effect model for different sub-samples identified by the motivation of the trip, as exogenously stated by tourists; ii) we estimated an extended model including higher order interactions between attribute levels and

Table 6
Estimation of conditional logit model: whole sample, business tourism, cultural tourism, leisure tourism (time attribute inserted in cardinal numbers).

Attributes and levels	Complete sample	Business tourism[a]	Cultural tourism[b]	Leisure tourism[c]
ASC	−0.00319 (0.0270)	0.00573 (0.0411)	0.0662 (0.0638)	−0.0431 (0.0463)
Organized trip	0.0578** (0.0270)	−0.0132 (0.0411)	0.487*** (0.0624)	−0.102** (0.0463)
Organized wellness	0.285*** (0.0270)	0.300*** (0.0411)	0.232*** (0.0626)	0.262*** (0.0465)
Pedestrian and high impact	0.136*** (0.0464)	0.118 (0.0721)	0.164 (0.103)	0.109 (0.0792)
Motorized and low impact	0.181*** (0.0540)	0.103 (0.0822)	0.253** (0.126)	0.210** (0.0923)
Pedestrian and low impact	0.314*** (0.0461)	0.171** (0.0707)	0.543*** (0.103)	0.351*** (0.0809)
Leisure card	0.224*** (0.0539)	0.213*** (0.0823)	0.189 (0.126)	0.258*** (0.0923)
Cultural card	0.268*** (0.0471)	0.118* (0.0716)	0.720*** (0.105)	0.109 (0.0832)
Leisure & cultural card	0.121*** (0.0466)	0.141** (0.0714)	−0.118 (0.108)	0.204*** (0.0786)
Shops open	0.149*** (0.0270)	0.0993** (0.0411)	0.129** (0.0624)	0.215*** (0.0464)
Time value	0.0292 (0.0227)	0.0447 (0.0347)	−0.00123 (0.0526)	0.00932 (0.0392)
Log likelihood	−3860.00	−1656.69	−761.98	−1328.70
Nr. of observations	11,468	4890	2466	3968
Pseudo R^2	0.02	0.02	0.11	0.03
% Correct predictions	58.49%	57.67%	54.22%	54.80%

Note. Standard errors in parenthesis. *: Significant at the 10% level; **: significant at the 5% level; ***: significant at the 1% level.
[a] Sample composed by respondents who answered 1, 2, or 3 in question 16.
[b] Sample composed by respondents who answered 5, 7, or 8 in question 16.
[c] Sample composed by respondents who answered 4, 6, 9, 10 or 11 in question 16.

Table 7
Estimation of conditional logit model: whole sample, business tourism, cultural tourism, leisure tourism (time attribute inserted as a series of dummy variables).

Attributes and levels	Complete sample	Business tourism[a]	Cultural tourism[b]	Leisure tourism[c]
ASC	−0.002 (0.0270)	0.00753 (0.0412)	0.0533 (0.0648)	−0.0426 (0.0463)
Organized trip	0.057** (0.0270)	−0.0159 (0.0412)	0.516*** (0.0639)	−0.105** (0.0465)
Organized wellness	0.286*** (0.0270)	0.302*** (0.0412)	0.218*** (0.0629)	0.263*** (0.0466)
Pedestrian and high impact	0.138*** (0.0464)	0.120* (0.0722)	0.160 (0.104)	0.110 (0.0793)
Motorized and low impact	0.180*** (0.0540)	0.0989 (0.0824)	0.248** (0.126)	0.209** (0.0925)
Pedestrian and low impact	0.315*** (0.0461)	0.169** (0.0708)	0.521*** (0.104)	0.354*** (0.0812)
Leisure card	0.224*** (0.0539)	0.216*** (0.0824)	0.187 (0.127)	0.261*** (0.0925)
Cultural card	0.267*** (0.0471)	0.120* (0.0717)	0.714*** (0.105)	0.103 (0.0835)
Leisure & cultural card	0.118** (0.0466)	0.141** (0.0715)	−0.144 (0.111)	0.202** (0.0786)
Shops open	0.153*** (0.0270)	0.102** (0.0412)	0.135** (0.0628)	0.219*** (0.0465)
One night more	0.1527*** (0.0541)	0.178** (0.0711)	0.228** (0.115)	0.115 (0.0804)
One night and day more	0.1233*** (0.0472)	0.231*** (0.0824)	0.0500 (0.126)	0.153* (0.0924)
Two nights more	0.0399 (0.0461)	0.0616 (0.0706)	−0.0339 (0.107)	−0.00244 (0.0798)
Log likelihood	−3855.82	−1652.61	−759.18	−1326.46
Pseudo R^2	0.03	0.02	0.11	0.04
Nr. of observations	11,468	4890	2466	3968
% Correct predictions	58.63%	58.49%	54.33%	58.39%

Note. Standard errors in parenthesis. *: Significant at the 10% level; **: significant at the 5% level; ***: significant at the 1% level.
[a] Sample composed by respondents who answered 1, 2, or 3 in question 16.
[b] Sample composed by respondents who answered 5, 7, or 8 in question 16.
[c] Sample composed by respondents who answered 4, 6, 9, 10 or 11 in question 16.

the motivation of the trip. Alternatively, models that relax the IIA hypothesis (Mixed Logit models, Heteroskedastic Extreme Value models, Random Parameter Logit models etc.) are often used in the literature. However, these alternative models require important assumptions (for example on the distributional form of the random parameters) to be previously evaluated (Train, 2003).

As regards the first approach, Tables 6 and 7 show the results for business (column 2), cultural (column 3) and leisure tourism (column 4) of the two specifications, respectively with the time attribute inserted as values (Table 6) and as dummies (Table 7). Robust results emerged, with important policy implications: firstly, business and leisure tourists, differently from cultural tourists, were not interested in organized trips in the surroundings of Rimini and in discovering their cultural heritage, food and wine resources and landscape. Secondly, business tourists were very interested in the "leisure card" option, less interested in the "all-inclusive" card, and basically not interested in the cultural card. A similar behavior was detected in leisure tourists. On the other hand, cultural tourists were very interested in the cultural card, less in the "all-inclusive" card, not at all interested in the leisure card. These two results highlight an important synergy between business and leisure tourists (as expected, business travelers stay in the destination if there are valuable options to relax) and a trade-off between business and cultural tourists, which seem to "fight" for alternative organizations of the destination.

However, it is also possible to find other synergies. Firstly, all types of tourists were very interested in the "wellness package"; secondly, they seemed to appreciate a different organization of the main tourism attraction of Rimini, the beach and the seaside avenue. Presently, Rimini is heavily built, with more than 1000 hotels, most of them located on the seaside, and a very organized system of beach services (during the summer season, there are dozens of bathing establishments which offer, for a payment, any kind of service to tourists) with only a tiny amount of the beach which is free-access to tourists. The environmental impact is therefore heavy. Moreover, the seaside avenue is open to traffic and there is strong resistance, among local stakeholders, to the pedestrianization of the avenue. However, all tourists seemed to appreciate the pedestrianization of the seaside avenue and a different "beach skyline" with less bathing establishments, and with lower environmental impact. The other two levels of the attribute inserted in the experiments (pedestrian avenue with high impact of the beach; avenue open to traffic and low impact of the beach) show mixed results: some segments seem to be more interested in the pedestrianization of the seaside avenue (business tourists); others attach a greater value to the reduction of the environmental impact of the tourism infrastructure (cultural and leisure tourists). However, the low significance of the coefficients for these two levels is also probably due to a perceived inconsistency in the scenarios.

Finally, it is interesting to analyze the coefficients of the time dummies (Table 7). None of the types of tourism were willing to significantly increase the length of stay in Rimini of two days (and pay for it), while, as regards one day more, an important difference emerged in comparing business and cultural tourists: the former were willing to take one day off from work and stay one more night, the latter were only willing to stay one more night. Our interpretation is that cultural tourists take short breaks, mainly on weekends, and therefore they have a strong time constraint, being really difficult for most of them to take one day (more) off work. Therefore, they want "more" offer, but to be consumed in the same amount of time. Business tourists, on the contrary, happen to visit Rimini for working reasons and most of them, if they could, would be willing to take a day off from work, and pay an extra-night in order to discover the attractions of the city which, during business meetings, are impossible to visit. In these sub-samples the Pseudo R^2 is generally higher since tourists are grouped on the basis of some observable characteristics or of a latent-class analysis that identify more homogeneous classes of tourists. Hence, the model applied to smaller but more homogeneous samples should better capture different behaviors. The percentage of cases correctly predicted by the model is shown in the last row of Tables 6–10, and is consistently around 57–58%.

The alternative approach used to deal with heterogeneity, as stated before, would be to estimate an extended model which includes higher order interactions between attribute levels and the motivation of the trip. In this way it would be possible to check whether preferences for the level of one attribute depend on social-demographic characteristics. The vast majority of choice experiments uses the main-effect design only, explicitly or implicitly assuming that interactions among attributes are not significant. However, if interactions are significant, such omission leads to biased results (Hensher, Rose, & Greene, 2005). In our experiments, the interaction coefficients were not statistically significant, so we continued the analysis by using the main-effect model only.

Table 8
Estimation of conditional logit model: different sub-samples

Attributes and levels	Italians	Foreigners	The young (<31)	The adults (31–45)	The senior (46–65)	The elderly (>65)	The tourist pays	The company pays	First time in Rimini	Previous times in Rimini
ASC	0.00235 (0.0287)	−0.0525 (0.0833)	−0.0628 (0.0577)	0.0208 (0.0490)	0.0262 (0.0437)	0.0102 (0.114)	−0.0354 (0.0326)	0.0646 (0.0489)	−0.0119 (0.0485)	0.00368 (0.0327)
Organized trip	0.0591** (0.0287)	0.0654 (0.0840)	−0.220*** (0.0571)	0.119** (0.0489)	0.109** (0.0438)	0.460*** (0.112)	0.0275 (0.0326)	0.126*** (0.0488)	0.0561 (0.0485)	0.0622* (0.0327)
Organized wellness	0.281*** (0.0287)	0.3432*** (0.0851)	0.453*** (0.0576)	0.283*** (0.0490)	0.226*** (0.0438)	0.00858 (0.112)	0.308*** (0.0327)	0.242*** (0.0488)	0.282*** (0.0486)	0.291*** (0.0327)
Pedestrian and high impact	0.131*** (0.0496)	0.2293* (0.1392)	0.0568 (0.0956)	0.218** (0.0848)	0.138* (0.0754)	0.190 (0.206)	0.137** (0.0559)	0.155* (0.0845)	0.0776 (0.0825)	0.168*** (0.0565)
Motor and low impact	0.151*** (0.0574)	0.4382*** (0.1655)	0.280** (0.115)	0.258*** (0.0978)	0.133 (0.0873)	0.260 (0.227)	0.258*** (0.0652)	0.0205 (0.0976)	0.133 (0.0968)	0.200*** (0.0653)
Pedestrian and low impact	0.291*** (0.0488)	0.5423*** (0.1479)	0.298*** (0.0939)	0.290*** (0.0853)	0.306*** (0.0737)	0.652*** (0.211)	0.416*** (0.0564)	0.118 (0.0813)	0.287*** (0.0827)	0.329*** (0.0557)
Leisure card	0.209*** (0.0573)	0.209** (0.1639)	0.293*** (0.113)	0.141 (0.0980)	0.225** (0.0872)	0.172 (0.222)	0.246*** (0.0651)	0.197** (0.0974)	0.165* (0.0966)	0.254*** (0.0652)
Cultural card	0.243*** (0.0496)	0.557*** (0.1569)	0.0677 (0.0985)	0.240*** (0.0842)	0.321*** (0.0761)	0.730*** (0.190)	0.344*** (0.0574)	0.114 (0.0834)	0.286*** (0.0849)	0.267*** (0.0568)
Leisure/cultural card	0.114** (0.0497)	0.1668 (0.1388)	0.0950 (0.0981)	0.0448 (0.0844)	0.188** (0.0758)	0.199 (0.199)	0.141** (0.0559)	0.0755 (0.0850)	0.0361 (0.0831)	0.157*** (0.0565)
Shops open	0.145*** (0.0287)	0.1986** (0.0846)	0.252*** (0.0573)	0.120** (0.0489)	0.125*** (0.0437)	0.0156 (0.111)	0.153*** (0.0327)	0.146*** (0.0488)	0.165*** (0.0485)	0.147*** (0.0327)
One night more	0.159*** (0.0501)	−0.194 (0.1440)	−0.0487 (0.103)	0.274*** (0.0852)	0.113 (0.0762)	0.0825 (0.181)	0.109* (0.0568)	0.156* (0.0854)	−0.0200 (0.0849)	0.186*** (0.0569)
One night and one day more	0.180*** (0.0574)	−0.0940 (0.1644)	0.139 (0.114)	0.211** (0.0978)	0.137 (0.0876)	0.0147 (0.223)	0.122* (0.0652)	0.213** (0.0977)	0.105 (0.0967)	0.173*** (0.0654)
Two nights more	0.0499 (0.0489)	−0.0657 (0.1423)	0.150 (0.0940)	0.0202 (0.0863)	0.0618 (0.0735)	−0.387* (0.199)	0.0207 (0.0561)	0.0716 (0.0821)	0.0695 (0.0830)	0.0271 (0.0557)
Log likelihood	−3416.77	−432.62	−898.37	−1179.16	−1478.81	−241.67	−2658.02	−1184.55	−1204.47	−2640.45
Pseudo R^2	0.03	0.05	0.07	0.03	0.03	0.11	0.04	0.02	0.03	0.03
Nr. of observations	10,148	1320	2784	3520	4384	780	7970	3498	3580	7872
% Correct predictions	58.63%	58.07%	56.66%	58.13%	58.23%	53.56%	58.41%	57.55%	56.49%	58.63%

Note. *: Significant at the 10% level; **: significant at the 5% level; ***: significant at the 1% level.

Table 9
Estimation of conditional logit model: different sub-samples.

Attributes and levels	Managers	White collars	Others	Low income	Middle income	High income	4/5 stars	3 stars	Others
ASC	0.0261 (0.0539)	0.0215 (0.0405)	−0.0440 (0.0527)	−0.0316 (0.0424)	0.0768 (0.0558)	−0.0213 (0.0462)	−0.0137 (0.0440)	0.0255 (0.0389)	−0.0535 (0.0830)
Organized trip	−0.0134 (0.0538)	0.101** (0.0405)	0.0785 (0.0529)	−0.0647 (0.0424)	0.0963* (0.0563)	0.162*** (0.0461)	0.0939** (0.0437)	0.0389 (0.0389)	−0.0340 (0.0930)
Organized wellness	0.393*** (0.0538)	0.270*** (0.0405)	0.208*** (0.0531)	0.247*** (0.0424)	0.186*** (0.0563)	0.406*** (0.0461)	0.323*** (0.0435)	0.240*** (0.0389)	0.320*** (0.0960)
Pedestrian and high impact	0.0804 (0.0930)	0.189*** (0.0704)	0.111 (0.0895)	0.195*** (0.0740)	0.187* (0.0965)	0.0549 (0.0779)	0.185** (0.0746)	0.0735 (0.0679)	0.167 (0.141)
Motor and low impact	0.115 (0.108)	0.177** (0.0809)	0.164 (0.105)	0.203** (0.0848)	0.141 (0.111)	0.200** (0.0921)	0.139 (0.0873)	0.184** (0.0779)	0.348** (0.157)
Pedestrian and low impact	0.282*** (0.0898)	0.236*** (0.0689)	0.406*** (0.0921)	0.363*** (0.0723)	0.242** (0.0976)	0.319*** (0.0775)	0.271*** (0.0719)	0.306*** (0.0683)	0.466*** (0.151)
Leisure card	0.206* (0.107)	0.251*** (0.0809)	0.252** (0.105)	0.260*** (0.0848)	0.215* (0.112)	0.183** (0.0918)	0.254*** (0.0872)	0.190** (0.0778)	0.249 (0.164)
Cultural card	0.231** (0.0917)	0.306*** (0.0703)	0.269*** (0.0944)	0.236*** (0.0728)	0.0909 (0.101)	0.406*** (0.0799)	0.294*** (0.0732)	0.297*** (0.0680)	−0.0580 (0.170)
Leisure/cultural card	0.0883 (0.0936)	0.170** (0.0701)	0.0734 (0.0895)	0.194*** (0.0737)	0.102 (0.0957)	0.0272 (0.0790)	0.114 (0.0761)	0.0775 (0.0671)	0.242* (0.146)
Shops open	0.122** (0.0538)	0.113*** (0.0405)	0.259*** (0.0530)	0.191*** (0.0424)	0.0767 (0.0558)	0.155*** (0.0461)	0.208*** (0.0435)	0.102*** (0.0389)	0.120 (0.0855)
One night more	0.229** (0.0949)	0.103 (0.0702)	0.0931 (0.0919)	0.131* (0.0739)	0.0924 (0.0955)	0.143* (0.0817)	0.131* (0.0778)	0.174*** (0.0668)	−0.00308 (0.146)
One night and one day more	0.164 (0.108)	0.182** (0.0810)	0.134 (0.105)	0.207** (0.0848)	0.00649 (0.112)	0.195** (0.0920)	0.160* (0.0872)	0.167** (0.0778)	0.0633 (0.163)
Two nights more	0.0608 (0.0909)	0.0889 (0.0691)	−0.0673 (0.0912)	0.0629 (0.0726)	−0.000121 (0.0950)	0.0416 (0.0786)	0.0232 (0.0735)	0.0603 (0.0681)	−0.0454 (0.136)
Log likelihood	−980.63	−1714.99	−1025.59	−1565.68	−912.25	−1351.72	−1504.29	−1850.62	−488.71
Pseudo R^2	0.04	0.03	0.04	0.03	0.02	0.05	0.04	0.02	0.04
Nr. of observations	2948	5088	3072	4672	2674	4122	4522	5474	1472
% Correct predictions	58.06%	58.48%	58.28%	57.90%	57.34%	58.13%	58.60%	57.62%	58.51%

Note. *: Significant at the 10% level; **: significant at the 5% level; ***: significant at the 1% level.

Table 10
Estimation of conditional logit model: different sub-samples.

Attributes and levels	1/2 days	3 days	4/6 days	7/15 days	Cultural lovers	Leisure lovers	Indecisive tourists
ASC	0.0468 (0.0417)	−0.0481 (0.0532)	0.0605 (0.0598)	−0.196** (0.0860)	0.0579 (0.0537)	−0.0136 (0.0342)	0.0223 (0.130)
Organized trip	0.0107 (0.0417)	0.125** (0.0532)	0.0921 (0.0596)	−0.0269 (0.0855)	0.422*** (0.0540)	−0.101*** (0.0342)	0.00343 (0.131)
Organized wellness	0.297*** (0.0417)	0.274*** (0.0533)	0.270*** (0.0597)	0.302*** (0.0864)	0.0924* (0.0539)	0.439*** (0.0342)	−0.304** (0.132)
Pedestrian and high impact	0.150** (0.0720)	0.223** (0.0941)	−0.0137 (0.101)	0.272* (0.142)	0.182** (0.0926)	0.181*** (0.0584)	−0.254 (0.228)
Motor and low impact	0.176** (0.0833)	0.208* (0.106)	0.0338 (0.119)	0.488*** (0.171)	0.307*** (0.107)	0.151** (0.0682)	0.195 (0.258)
Pedestrian and low impact	0.384*** (0.0718)	0.252*** (0.0896)	0.266*** (0.1000)	0.338** (0.148)	0.574*** (0.0920)	0.275*** (0.0581)	0.418* (0.224)
Leisure card	0.168** (0.0832)	0.259** (0.106)	0.234** (0.119)	0.371** (0.170)	0.199* (0.107)	0.249*** (0.0680)	−0.233 (0.258)
Cultural card	0.247*** (0.0727)	0.207** (0.0908)	0.425*** (0.104)	0.243 (0.153)	0.793*** (0.0938)	0.0596 (0.0594)	−0.0240 (0.215)
Leisure/cultural card	0.0115 (0.0717)	0.0882 (0.0931)	0.264** (0.103)	0.377*** (0.144)	0.217** (0.0933)	0.126** (0.0585)	−0.0412 (0.230)
Shops open	0.134*** (0.0417)	0.135** (0.0532)	0.132** (0.0597)	0.280*** (0.0860)	0.0323 (0.0538)	0.196*** (0.0342)	0.107 (0.130)
One night more	0.214*** (0.0723)	0.156* (0.0919)	0.0192 (0.105)	−0.177 (0.153)	−0.0130 (0.0922)	0.178*** (0.0604)	0.299 (0.225)
One night and one day more	0.216*** (0.0833)	0.212** (0.106)	0.0241 (0.119)	−0.0369 (0.169)	−0.0468 (0.108)	0.235*** (0.0681)	0.602** (0.260)
Two nights more	0.0191 (0.0718)	0.0595 (0.0897)	0.121 (0.100)	−0.103 (0.149)	−0.132 (0.0912)	0.166*** (0.0587)	0.0571 (0.223)
Log likelihood	−1622.94	−1000.43	−801.64	−405.38	−1002.03	−2449.66	−172.39
Pseudo R^2	0.03	0.03	0.04	0.06	0.09	0.05	0.06
Nr. of observations	4850	2976	2400	1242	3176	7450	528
% Correct predictions	57.88%	58.60%	56.67%	56.71%	54.92%	57.53%	48.05%

Note. *: Significant at the 10% level; **: significant at the 5% level; ***: significant at the 1% level.

4.2. The in-depth analysis: the model applied to different sub-samples

In Table 8 we presented the results of the conditional logit model run on different sub-samples. Firstly, we split according to the region of origin of tourists (Italians and Foreigners). The main difference is related to the importance of organized trips (the coefficient was not significant for Foreigners) and to the time attribute (none of the coefficients for the time dummies are significant for Foreigners, hence they are not interested in spending more time in Rimini).

In the next columns of Table 8 the breakdown by age is shown. We highlight the relevance of organized trips (the coefficient was negative and significant for young people), organized wellness (the coefficient was highly significant for all the age groups, except for the elderly), the leisure card (the coefficient was not significant for the elderly), the cultural card (the coefficient was not significant for the young) and the extended opening time of shops (the coefficient, again, was not significant for the elderly). Finally, with respect to the time dummies, the only significant coefficients were for the adults (willing to stay one more day and one more night).

Another interesting breakdown is between tourists who pay for the trip (basically all the cultural and leisure tourists and some of the business tourists) and those tourists who have the trip paid or refunded by their employer (the majority of business tourists). An important difference emerged: the former had a positive attitude with respect to most of the attribute levels that improve the status quo (the only exception being organized trips, which had a not significant coefficient). However, the coefficients for the time dummies were just weakly significant (one night, and one night and one day) or not significant (two nights). Probably, all these tourists, who have organized the trip themselves, have already optimized how to spend their time in Rimini among the different activities and attractions. The second group, that might be called the "hard-core" business tourists, were strongly interested in leisure activities (the extended opening of the shops, the leisure card, the organized system of wellness and the organized trip all had significant coefficients), and not interested in what is related with cultural and environmental offer (the coefficients for the pedestrian seaside avenue and for the cultural card were not significant). Moreover, they were willing to stay one more night and one more day in Rimini to take advantage of the improved scenarios offered.

Finally, another breakdown that we presented in Table 8 is between tourists who had never been to Rimini before and those who were repeating the visit. The former were less interested in an improvement of the "Rimini package" and were not willing to pay for spending more time in Rimini, contrary to what happened with repeating tourists (Table 8). The reason is probably to be found in the fact that the first group includes tourists who rarely go back in the same destination, tourists who happened to be there for other reasons (mainly business) and tourists who just did not like the city and that, therefore, were not interested in extending their length of stay.

In Table 9, other breakdowns of the whole sample are proposed. Firstly, we aggregated the different occupational categories into three groups: managers (including entrepreneurs, managers and professionals), white collars (including traders, employees and teachers), others (blue collars, students, unemployed and retired persons). Some interesting differences emerged: firstly, there was a different pattern in the organization of free time: managers disliked organized trips (although not significant, the coefficient has a negative sign), which were, on the contrary, much appreciated by the middle class; they liked the system of wellness and the "pedestrian" seaside, although less than the middle class and the residual class. The other coefficients are as expected, except that the all-inclusive card option was not particularly appreciated. Interestingly, managers were willing to stay only one more night, while white collars were also willing to spend an extra day, probably due to the fact that the former have less opportunities to stay another day away from work (or their opportunity cost is too high).

It would be wrong to link these preferences to income. In fact, in the next three columns of Table 9, a breakdown with respect to income is presented, and we can see that choices of high-income recipients did not overlap with those of managers. Time constraints and the responsibilities linked with the profession seem a more important binding factor than income in affecting the willingness to extend the stay. Finally, a breakdown with respect to the type of accommodation was also presented in the last three columns of Table 9.

In Table 10 some other checks were carried out. In the first four columns, the breakdown by length of stay was presented. Not surprisingly, the most important difference was about the willingness to stay one more night and one more night and one more day: positive and significant for tourists who stay for only one or two days, not significant for all the others; arguably, for a city like Rimini, three days are considered enough for a visit off-season.

Table 11
Simulation of the distribution of choice probabilities in the case of four scenarios.

Attribute	Status quo	Cultural scenario	Leisure scenario	Environmental scenario
Day trip	Not organized	Organized	Not organized	Organized
Wellness, sport	Not organized	Not organized	Organized	Organized
Environmental impact	High beach impact and motor. avenue	High beach impact and ped. avenue	High beach impact and ped. avenue	Low beach impact and ped. avenue
Holiday cards	No card	Cultural card	Leisure card	Cultural and leisure cards
Shops	Closed	Closed	Open	Closed
Choice probabilities				
Complete sample	14.34%	22.75%	31.71%	31.20%
Business tourism	16.27%	20.33%	33.78%	29.62%
Cultural tourism	9.88%	38.92%	20.18%	31.02%
Leisure tourism	17.11%	27.56%	34.97%	20.36%

Finally, in the last three columns, the same conditional logit model was estimated for each endogenous cluster obtained in the latent-class analysis carried out in Section 3.1. It was found that culture lovers mainly preferred to avail of organized tours, of cultural and all-inclusive cards to access different types of tourism facilities, but were not willing to spend extra time in Rimini. On the contrary, leisure lovers were willing to spend more time in town, to do shopping even during the night and on Sundays, and to have access to wellness facilities. They would appreciate the availability of leisure or all-inclusive cards. Both culture and leisure lovers' choices were positively affected by environmentally friendly investments which reduce the impact on the beach and provide for the pedestrianization of the seaside avenue. Overall, the endogenous clusters seem able to identify more precisely the needs and demands of different types of tourists in Rimini.

5. Choice probability of different scenarios and policy discussion

Choice experiments allow to build alternative hypothetical scenarios by mixing attribute levels in certain combinations. We built four scenarios differing in the level of five attributes of the choice experiments (the time variable was excluded): the status quo, the "cultural" scenario, the "leisure" scenario, the "environmental" scenario, which characteristics and levels are presented in Table 11. Such simulation can be of great help for assisting policy makers in their decisions, although it has to be recalled that this exercise, which compares more than two alternatives at the same time, is based on the IIA assumption.

We inferred the probability (reported in Table 11) that tourists picked each scenario out of the four alternatives by inserting in Eq. (2.2) the coefficient estimated in Table 7. The inspection of Table 11 suggests that the leisure scenario was the favorite of business and leisure tourists while, for the whole sample, the environmental scenario was as likely to be chosen. Not surprisingly, the cultural scenario was the first best for cultural tourists. One important difference between business and leisure tourists lies in their second best option: for business tourists it was the environmental scenario, while for leisure tourists it was the cultural scenario. The least preferred scenario was, by all groups, the status quo.

The policy implication of this simulation for the local authorities is straightforward: there is much room for improvement in the organization of Rimini's tourism policy, and two different options can be suggested. If the goal is to find an equilibrium between diverging needs and demands, it seems that the environmental scenario is the most balanced, and can be positively accepted by all the types of tourism that Rimini hosts off-season. However, such scenario is probably very costly to implement. Alternatively, if a budget constraint is active in the destination, it appears that the policy makers face a trade-off between two opposite models of off-season tourism development: the cultural and the leisure model. Since overall the leisure scenario is more appreciated than the cultural model, and meets the needs of both business and leisure tourists, it appears to be the best option for the destination management. Moreover, business tourists are the relative majority of off-season tourists and they have the highest willingness to extend their stay in Rimini: hence, two of the destination's main targets (an increase in the average length of stay and in tourism spending) are more likely to be reached.

As recalled in the introduction, our analysis follows two studies which, using the same methodology and a very similar questionnaire, were investigating summer tourists' preferences in Rimini (Brau et al., 2009) and residents of the city of Rimini (Figini et al., 2009). Given the similarity between the questionnaires, we were able to build a few scenarios based on some of the attributes in order to compare the probability that a representative off-season tourist in Rimini chooses each scenario with the analogous

Table 12
Simulation of the distribution of choice probabilities in the case of four scenarios for residents, in-season and off-season tourists.

Attributes	Status quo	Leisure scenario	Cultural scenario	Environmental scenario
Environmental impact	High beach impact and motor. avenue	High beach impact and ped. avenue	High beach impact and ped. avenue	Low beach impact and ped. avenue
Leisure & culture	No card and only sea holiday during summer	Leisure card and only sea holiday during summer	Cultural card, (traditional) museum always open	Cultural and leisure cards, ethnic museum open only during the winter
Shops	Closed shops and beach during the night	Summer night opening of the beach and shops open in all seasons and days and during the night	Closed shops and beach during the night	Closed shops and beach during the night
Choice probabilities				
Off-season tourists	17.52%	29.15%	26.25%	27.07%
In-season tourists	9.52%	41.12%	25.96%	23.40%
Residents	8.54%	34.60%	27.81%	29.04%

probability for a resident and for a summer tourist. This simulation allows the identification of differences in the distribution of tourists and residents' preferences, and the identification of the preferred scenarios for each category of respondents. Thus, it provides an useful information for policy makers aiming at proposing social welfare enhancing tourism projects, although it must be highlighted that the twin studies on summer tourists and on residents slightly differed in the definition and in the levels of the cultural, leisure and monetary attributes and this might affect the estimated choice probability.

The inspection of Table 12 shows again that the status quo was the worst scenario for all types of tourists and for residents. The best option for in-season tourists, off-season tourists, and residents was the leisure scenario, but the cultural scenario was the second best for in-season tourists only. On the contrary, the environmental scenario was the second best for residents and off-season tourists, although the distribution of preferences among the three alternative scenarios to the status quo is relatively uniform.

Again, policy makers seem to be facing relative trade-offs between different hypothetical organizations of the territory and the demands and needs of "hosts" and "guests" of Rimini, although the leisure scenario appears to be the best overall option from the destination point of view.

6. Conclusions

In this paper we investigated any synergy and trade-off emerging from demands and needs of different types of off-season tourists in a mass-tourism destination. In the case of a mature destination such as Rimini, which recently has been greatly investing in the diversification of the tourism product toward business and cultural tourism, this issue is crucial for both the tourism and the cultural policy of the territory. Who are off-season tourists in Rimini? What would they like to have in the cultural and leisure offer of the territory? What are the implications for the policy agenda of the destination management? These are the main questions we addressed in this work. Moreover, the structure of the investigation, very similar to the twin studies carried out recently in Rimini on summer tourists (Brau et al., 2009) and on residents (Figini et al., 2009), allowed us to check for synergies and trade-offs among the local population and guests of Rimini.

The main results can be summed up as follows:

1. The social-demographic analysis suggests that, off-season, it is possible to identify three main segments of tourism: business, leisure and cultural tourism. Business and leisure tourists share many features related to the use of the territory such that only two homogeneous groups can be identified by the latent-class analysis: the "leisure lovers" and the "culture lovers".
2. All types of tourism ask for some improvement in the organization of the stay in Rimini with respect to the status quo: they all would prefer to have an integrated system of organized wellness, to walk on a seaside avenue "with a human face", closed to traffic, and to take advantage of the extended opening hours of shops.
3. Apart from these synergies, there are also important trade-offs, particularly between business and leisure tourism on one side (the "leisure lovers"), and cultural tourism on the other side (the "culture lovers"). Culture lovers ask for a system of discounts and facilities to visit the cultural offer in Rimini, while leisure lovers ask for a system of discounts and facilities for pubs, night clubs, restaurants. Culture lovers ask for a system of organized excursions in the surroundings, which is not demanded instead by leisure lovers.
4. Although both business and cultural tourists show a weak willingness to increase their length of stay in Rimini, only business tourists are significantly willing to spend one more full day in the city. Since this higher propensity to stay is directly linked with spending, since business tourists are the relative majority of off-season tourists and since they have a higher income and a softer budget constraint, from the destination point of view the first best would be to meet the demand of "leisure lovers", by investing more in the leisure organization of the territory. This is also optimal if we consider that the leisure model is the scenario that best responds also to the demand of summer tourists and residents. This is unsurprising, since Rimini is one of the main holiday and leisure destinations in Italy, having been developed on the needs of summer beach tourists.
5. Is it efficient to invest in cultural activities and to promote cultural tourism in Rimini? From a tourism policy perspective, our conclusion is partially negative, since cultural tourists are not numerically important and their demand partially contrasts with leisure lovers' demand. However, previous works find that summer tourists (Brau et al., 2009) and residents (Figini et al., 2009) ask for more cultural offer. Therefore, cultural tourism might play a fundamental role in the intermediate seasons, as a tool to smooth the seasonality, to diversify the tourism investment, and also considering that Rimini has an important cultural heritage to value. To conclude, cultural tourism, although being definitely a "second best" for Rimini's tourism policy, does not have to be neglected.
6. From a cultural policy perspective, the promotion of cultural tourism involves a long-term investment. A city like Rimini, which is internationally known as a summer and leisure destination, is not perceived as a cultural destination, regardless of the few exhibitions that can be organized over the years. To attach a brand of cultural city to Rimini, investments in cultural activities have to be repeated regularly and continuously (Candela, Giannerini, Di Lascio, & Scorcu, 2010) and might result very costly. Moreover, in order to win the strong competition of the many other Italian art cities, investments have to probably be directed toward contemporary art.

Apart from these conclusions, which are of local interest, we believe that our work deserves attention from a more general perspective too. Firstly, the methodology used (discrete choice models combined with latent-class analysis) can easily be applied to other destinations and to other cultural policy issues. Secondly, the policy implications of this type of analysis suggest that it would be wrong to consider tourism as a monolith, that the needs of different types of tourism might easily clash and that the policy of tourism mix has to be handled with much care: not all the territories can be successfully developed into tourism destinations, not all the tourism destinations can successfully diversify toward cultural tourism. Thirdly, the careful design of the choice experiments might allow to compare needs and demands of different types of tourists, in-season and off-season, and of the local population, providing to be a useful tool to assist the destination management in the identification of welfare enhancing tourism and cultural policy decisions.

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Appendix

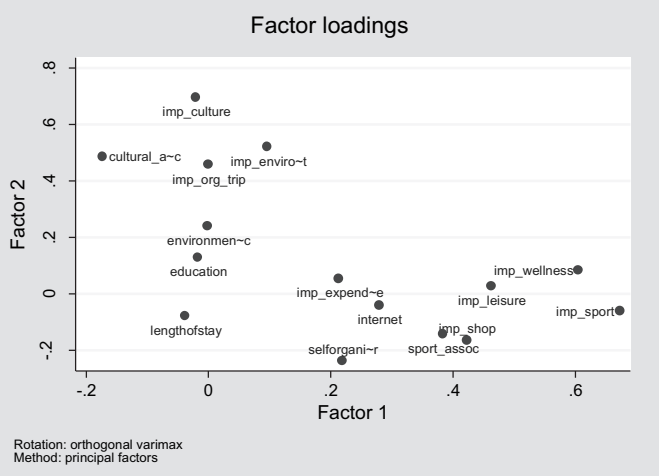

Figure A1. Factor loadings.

Table A1
Factor extraction.

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor 1	1.69965	0.42502	0.5711	0.5711
Factor 2	1.27463	0.63308	0.4283	0.9994
Factor 3	0.64155	0.26449	0.2156	1.2149
Factor 4	0.37705	0.21037	0.1267	1.3416
Factor 5	0.16668	0.08076	0.056	1.3976
Factor 6	0.08592	0.06266	0.0289	1.4265
Factor 7	0.02326	0.05578	0.0078	1.4343
Factor 8	−0.03252	0.04027	−0.0109	1.4234
Factor 9	−0.07279	0.05092	−0.0245	1.3989
Factor 10	−0.12371	0.01067	−0.0416	1.3574
Factor11	−0.13438	0.00751	−0.0452	1.3122
Factor12	−0.14189	0.08347	−0.0477	1.2645
Factor13	−0.22536	0.04343	−0.0757	1.1888
Factor14	−0.26879	0.02434	−0.0903	1.0985
Factor15	−0.29313		−0.0985	1.0000

Table A2
Factor loadings (Varimax rotation).

Variable	Rotated		Unrotated	
	Factor 1	Factor 2	Factor 1	Factor 2
imp_org_trip	−0.0012	0.4591	−0.2589	0.3791
imp_enviro~t	0.0957	0.523	−0.2146	0.4864
imp_wellness	0.6038	0.0846	0.452	0.4092
imp_sport	0.6723	−0.0585	0.5891	0.3293
imp_shop	0.4218	−0.163	0.4405	0.1021
imp_expend~e	0.2122	0.0556	0.1443	0.1652
imp_leisure	0.4615	0.0284	0.3658	0.2827
imp_culture	−0.0208	0.6984	−0.4096	0.5661
environmen~c	−0.0025	0.2411	−0.1375	0.198
cultural_a~c	−0.1739	0.4879	−0.4179	0.306
sport_assoc	0.3826	−0.1397	0.395	0.0993
selforgani~r	0.2179	−0.2354	0.3125	−0.0723
lengthofstay	−0.0387	−0.0771	0.0113	−0.0855
education	−0.0179	0.1306	−0.0882	0.098
internet	0.2785	−0.0388	0.2522	0.1244

References

Akis, S., Peristianis, N., & Warner, J. (1996). Residents' attitudes to tourism development: the case of Cyprus. *Tourism Management, 17*, 481–494.

Alberini, A., & Longo, A. (2006). Combining the travel cost and contingent behavior methods to value cultural heritage sites: evidence from Armenia. *Journal of Cultural Economics, 30*, 287–304.

Alberini, A., Massiani, J., & Rosato, P. (2009). Le preferenze degli operatori immobiliari per gli investimenti su beni storici architettonici: un'indagine di Conjoint Choice sul riuso dell'Arsenale di Venezia. *Aestimum, 55*, 1–18.

Alberini, A., Rosato, P., & Zanatta, V. (2005). Combining actual and contingent behaviour to estimate the value of sport fishing in the lagoon of Venice. *Ecological Economics, 61*, 530–541.

Apostolakis, A., & Jaffry, S. (2005). A choice modelling application for Greek heritage attractions. *Journal of Travel Research, 43*, 309–318.

Apostolakis, A., & Shabbar, J. (2005). Stated preferences for two Cretan heritage attractions. *Annals of Tourism Research, 32*, 985–1005.

Bateman, I. J., Carson, R. T., Day, B., Hanemann, M., Hanley, N., Hett, T., et al. (2002). *Economic valuation with stated preference techniques*. Cheltenham: Edward Elgar.

Baum, T., & Lundtrop, S. (2001). *Seasonality in tourism*. Oxford: Pergamon.

Ben-Akiva, M., & Lerman, S. (1985). *Discrete choice analysis: Theory and application to travel demand*. Cambridge: MIT Press.

Bennett, J., & Blamey, R. (Eds.). (2001). *The choice modelling approach to environmental valuation*. Cheltenham: Edward Elgar.

Brau, R., & Cao, D. (2008). Uncovering the macrostructure of tourists' preferences. A choice experiment analysis of tourism demand to Sardinia. In R. Brau, A. Lanza, & S. Usai (Eds.), *Tourism and sustainable economic development: Macroeconomic models and empirical methods*. Cheltenham: Edward Elgar.

Brau, R., Scorcu, A. E., & Vici, L. (2009). Assessing visitor satisfaction with tourism rejuvenation policies: the case of Rimini, Italy. *Journal of Environmental Planning and Management, 52*, 25–42.

Breffle, W., & Morey, E. (2000). Investigating preference heterogeneity in a repeated discrete-choice recreation demand model of Atlantic salmon fishing. *Marine Resource Economics, 15*, 1–20.

Candela, G., & Castellani, M. (2008). La stagionalità nel turismo e le politiche di destagionalizzazione. In *L'Italia. Il declino economico e la forza del turismo*. Roma: Marchesi Grafiche Editoriali.

Candela, G., Cellini, R., & Scorcu, A. E. (2003). Comportamenti d'impresa e informazione del consumatore: un'analisi empirica sui prezzi del pernottamento turistico. *Politica economica, 3*, 441–465.

Candela, G., Giannerini, S., Di Lascio, F. M. L., Scorcu, A. E. (2010). Turismo, cultura e territorio. Mimeo, University of Bologna.

Caserta, S., & Russo, A. P. (2002). More means worse: asymmetric information, spatial displacement and sustainable heritage tourism. *Journal of Cultural Economics, 26*, 245–260.

Choi, A. S., Ritchie, B. W., Papandrea, F., & Bennett, J. (2010). Economic valuation of cultural heritage sites: a choice modelling approach. *Tourism Management, 31*, 213–220.

Christiadi, C., Cushing, B. (2007). Conditional logit, IIA, and alternatives for estimating models of interstate migration. Regional Research Paper, 4.

Crotts, J. C., & Holland, S. M. (1993). Objective indicators of the impact of rural tourism development in the state of Florida. *Journal of Sustainable Tourism, 1*, 112–120.

Crouch, G. I., & Louviere, J. J. (2004). The determinants of convention site selection: a logistic choice model from experimental data. *Journal of Travel Research, 43*, 118–130.

Del Corpo, B., Gasparino, U., Bellini, E., Malizia, W. (2008). Effects of tourism upon the economy of small and medium-sized European cities. Cultural tourists and "the others". FEEM Working Paper Series n. 44.2008.

Faulkner, H. W., & Tideswell, C. (1997). A framework for monitoring community impacts of tourism. *Journal of Sustainable Tourism, 5*, 3–28.

Figini, P., Castellani, M., & Vici, L. (2009). Estimating tourist externalities on residents: a choice modelling approach to the case of Rimini. In A. Matias, P. Nijkamp, & M. Sarmento (Eds.), *Advances in tourism economics. New developments*. Berlin: Springer-Verlag.

Fry, T. R. L., & Harris, M. N. (1998). Testing for independence of irrelevant alternatives: some empirical results. *Sociological Methods & Research, 26*, 401–423.

Hanley, N., Mourato, S., & Wright, R. (2001). Choice modelling: a superior alternative for environmental valuation. *Journal of Economic Surveys, 15*, 435–462.

Hanley, N., Wright, R., & Koop, G. (2002). Modelling recreation demand using choice experiments: climbing in Scotland. *Environmental and Resource Economics, 22*, 449–466.

Haralambopoulos, N., & Pizam, A. (1996). Perceived impacts of tourism: the case of Samoas. *Annals of Tourism Research, 23*, 503–526.

Hensher, D., Rose, J., & Greene, W. (2005). *Applied choice analysis: A primer*. Cambridge: Cambridge University Press.

Huybers, T. (2005). Destination choice modelling: what's in a name? *Tourism Economics, 11*, 329–350.

Huybers, T., & Bennett, J. (2000). Impact of the environment on holiday destination choices of prospective UK tourists: implications for Tropical North Queensland. *Tourism Economics, 6*, 21–46.

Hylleberg, S. (1992). *Modelling seasonality*. Oxford: Oxford University Press.

Koenig-Lewis, N., & Bishoff, E. E. (2005). Seasonality research: the state of the art. *International Journal of Tourism Research, 7*, 201–219.

Lancaster, K. (1966). A new approach to consumer theory. *Journal of Political Economy, 74*, 132–157.
Lancaster, K. (1971). *Consumer demand – A new approach*. New York: Columbia University Press.
Lindberg, K., Dellaert, B. G. C., & Rassing, C. R. (1999). Resident trade-offs. A choice modelling approach. *Annals of Tourism Research, 26*, 554–569.
Lindberg, K., & Johnson, R. L. (1997a). The economic values of tourism's social impacts. *Annals of Tourism Research, 24*, 90–116.
Lindberg, K., & Johnson, R. L. (1997b). Modelling resident attitudes toward tourism. *Annals of Tourism Research, 24*, 402–424.
Liu, J., Sheldon, P., & Var, T. (1987). A cross-national approach to determining resident perceptions of the impact of tourism on the environment. *Annals of Tourism Research, 14*, 17–37.
Louviere, J. J., & Hensher, D. A. (1983). Using discrete choice models with experimental design data to forecast consumer demand for a unique cultural event. *Journal of Consumer Research, 10*, 348–361.
Louviere, J. J., Hensher, D. A., & Swait, J. D. (2000). *Stated choice methods*. Cambridge: Cambridge University Press.
Massiani, J., Rosato, P. (2008). The preferences of Trieste inhabitants for the reuse of the old port: a conjoint choice experiment. FEEM Working Papers n.74.2008.
Mazzanti, M. (2002). Cultural heritage as a multi dimensional, multi value and multi attribute economic resource. *Journal of Socio-Economics, 31*, 529–558.
Mazzanti, M. (2003a). Valuing cultural heritage in a multi-attribute framework. Microeconomic perspectives and policy implications. *Journal of Socio-Economics, 32*, 549–569.
Mazzanti, M. (2003b). Discrete choice models and valuation experiments. *Journal of Economic Studies, 30*, 584–604.
McFadden, D. (1974). Conditional logit analysis of qualitative choice behaviour. In P. Zarembka (Ed.), *Frontiers in econometrics*. New York: Academic Press.
McFadden, D. (1984). Econometric analysis of qualitative response models. In Z. Griliches, & M. D. Intriligator (Eds.), *Handbook of econometrics II*. Amsterdam: Elsevier Science.
Morey, E., Rossmann, K. G., Chestnut, L. G., & Ragland, S. (2002). Valuing reduced acid deposition injuries to cultural resources: marble monuments in Washington DC. In S. Navrud, & R. C. Ready (Eds.), *Applying environmental valuation techniques to historic buildings, monuments and artifacts*. Cheltenham: Edward Elgar.
Navrud, S., & Ready, R. C. (2002). *Valuing cultural heritage*. Cheltenham: Edward Elgar.
Papatheodorou, A. (2001). Why people travel to different places. *Annals of Tourism Research, 28*, 164–179.
Poor, P. J., & Smith, J. M. (2004). Travel cost analysis of a cultural heritage site: the case of historic St. Mary's City of Maryland. *Journal of Cultural Economics, 28*, 217–229.
Pulido-Fernandez, I. J., & Sanchez-Rivero, M. (2010). Attitudes of the cultural tourists: a latent segmentation approach. *Journal of Cultural Economics, 34*, 111–129.
Rosselló Nadal, J., Riera Font, A., & Sansó Rosselló, A. (2004). The economic determinants of seasonal patterns. *Annals of Tourism Research, 31*, 697–711.
Ryan, C. (1991). *Recreational tourism: A social science perspective*. London: Routledge.
Thurstone, L. L. (1927). A law of comparative judgement. *Psychological Review, 34*, 273–286.
Train, K. (2003). *Discrete choice methods with simulation*. Cambridge: Cambridge University Press.
Tuan, T. H., & Navrud, S. (2007). Valuing cultural heritage in developing countries: comparing and pooling contingent valuation and choice modelling estimates. *Environmental and Resource Economics, 38*, 51–69.
Tuan, T. H., Seenprachawong, U. (2007). The value of cultural heritage sites in Southeast Asia – a comparison of values and discussion of the difficulties of benefits transfer. EEPSEA Study Report.
Williams, T. A. (1979). Impact of domestic tourism in host population: the evolution of a model. *Tourist Recreation Research, 4*, 15–21.